GPS Motorcycle/Vehicle Tracker

USER MANUAL

(Model: GT08)

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Preface

GT08 GPS Motorcycle/vehicle tracker is the cost-effective solution for security & real-time tracking. It is specially used for motorcycle/car tracking because of its compact size and water-proof design.

Read it Firstly:

Please read this manual thoroughly before you use the device; please keep it for future reference.

Attention:

(1) Please keep the device away from heavy water, high temperature, heavy dust or strong magnetism.

(2) Please prepare a valid GSM SIM card in advance.

(3) For safety reason, do not tell other people the mobile phone number of your GT08.

Warning:

We strongly suggest user let the professional car electrician to install the system.

I. Features & Functions

1. Track on command or by time interval.
2. Arm/disarm by SMS or phone call.
3. Check the car's real physical address (such as city name, street name.) directly without server's support;
4. Track by mobile SMS to get the latitude, longitude, speed, direction & odometer etc.
5. Check the location directly by the Google map's URL;
6. Online website tracking by GPRS data network;
7. Odometer function
8. Over-speed alarm, Geo-fence alarm;
9. Movement alarm which can be used as an alarm;
10. SOS alarm(optional);
11. Built-in shock sensor for power saving & triggering vibration alarm;
12. Built-in rechargeable backup battery; when the car battery is cut off or low enough, the system will send out power failure alarm immediately;
13. It can upgrade the normal car alarm with remote alarm function;
14. Voice monitoring;
15. Cut off engine to stop the car safely by SMS/GPRS;
16. Support analog input for fuel monitoring;
17. I/O: 4 inputs and 1output;
18. Compact size with water-proof design
19. Wide working voltage range, from 6V-45VDC, suitable for motorcycle, car or some big truck with normal voltage.
20. Friendly SMS operation commands & SMS contents in different languages (English, Chinese, Arabic, Portuguese, Spanish)
21. There are 3 types of working mode for power saving flexibly.

II. How to Operate it

The default user password is **111111**.

If the user password is changed, user should send the SMS command with the new user password instead of 111111.

XXX is the control code, all the letters must be **capital letters or in small letters**, command with mixed capital letter & small letter is not recognized by system

Authorize the Alarm-received Phone No.

SMS command: **111111*10 Mobile #1*20 Mobile #2***

In case of alarm, if user wants to get the alarm SMS from the tracker, he/she needs send the following SMS to program the tracker firstly, otherwise, the alert information can't be received correctly.

Example: User sends the SMS 111111*1013922713571*2013711189059* to the tracker's SIM card number, if there is any alarm, system will send SMS to both of these two mobiles. In case of SOS alarm, the system will only send alarm to the mobile #2

Arm/Disarm by Phone Calling

User could also use the 1st alarm-received mobile phone to call the tracker's SIM card number, so as to arm/disarm the system.

Arm: After hearing several ring tones, if the systems hang up the call automatically, and call back you, it means that the system is armed.

Disarm: After hearing several ring tones, if the system hangs up the call automatically, and don't call back you, it means that the system is disarmed.

Note:

(1) There is no communication fee for this operation, it is a very convenient way to arm & disarm the system.

(2)The SIM card inside the device must have the function of Caller ID Display.

(3) Only the 1st **alarm-received mobile phone** can realize this function.

Check the Vehicle's Status

SMS command: **111111CHK** (or **111111chk**)

This instruction is used to inquiry the vehicle's location & system's status.

The system will send back the SMS, includes the similar information, such as "Tracker Armed……"

User could also use the 2nd alarm-received mobile phone to call the tracker's SIM card number, the tracker will hand up the calling & send back the location directly.

Arm/Disarm the System by SMS

SMS command: **111111ARM** (or **111111arm**)

This SMS instruction is used to arm the system

When the system is armed, the movement alert is activated automatically. When the motorcycle/car moves, the alarm will be triggered.

SMS command: **111111DSM** (or **111111dsm**)

This command is used to disarm the system & stop sending alert SMS.

Check the location by Google Map's URL

SMS command: **111111MAP** (or **111111map**)

Upon receiving the SMS command, the tracker will automatically send back the SMS including the Google map's URL, user can use smart phone (GPRS data service is enabled) to open the URL link, the car's location will be showed on the Google map.

Check the Real Physical Address

SMS command: **111111ADD** (or **111111add**)

When user sends this SMS command to the tracker, the tracker will automatically send back the car's real physical address (such as city name, street name) to your mobile by SMS. User need register the tracker in the TS03 tracking platform to use this function.

Remark: (1) The GPRS data service of the tracker's SIM card must be activated, and the correct GPRS setting is needed (refer to the chapter of the setting of GPRS connection), user can set up the GPRS upload time interval to 0 so as to save the GPRS flow; (2) The physical address depends on the Google map's address information. If the place has very detailed information on Google map, then the physical address by SMS is very detailed.

Check the Real Physical Address Directly without Server

SMS command: **111111DDD** (or **111111ddd**)

When user sends this SMS command to the tracker, the tracker will automatically send back the car's real physical address (such as city name, street name) to your mobile by SMS.

Change User Password

SMS command: **111111PSWnnnnnn** (or **111111pswnnnnnn**)

This instruction is used to change the user password. The length of the user's password is 3~6 digits. Users are suggested to change to the new password in use.

Example: User sends the SMS "111111PSW12345" to the system SIM card number, and gets the confirmed SMS "111111PSW12345" in 3 seconds. It means that the user password has been changed to 12345.

Remark: Please keep the password deep in mind if it is changed.

Stop the Car by SMS

SMS command: **111111STP** (or **111111stp**)

This instruction is used to stop the motorcycle/car immediately

SMS command: **111111STPN** (or **111111stpN**)

This instruction is used to stop the motorcycle/car gradually. Example:111111STP30, if the car's speed is higher than 30KM/h, the car is stopped gradually by impulse control, if the car's speed is lower than 30Km/h, the car is stopped immediately.

Attention: It is very dangerous to stop the car when the vehicle is running at high speed. We do not take any responsibility to the consequence caused by this action.

Restore the Stopped Car to Normal Status

SMS command: **111111RES** (or **111111res**)

It is used to restore the car to normal status after being stopped.

Monitor the Voice around the Car

SMS command: **111111MONP**

This instruction is used to monitor the voice around the car. The SIM card inside the system pays for the communication fee.

The P is the telephone which is used to monitor the voice. When user send out this SMS to the system, the system will call back the telephone P, user could listen in the voice around the car upon picking up the call.

If you use the present mobile to carry out the monitoring, you can let the P as blank, sending **111111MON** is OK.

Example: P =13780012345. If user sends 111111MON13780012345 to system, the system will call back the phone 13780012345 immediately. Once upon pickup the call from the system, user can hear the voice around.

SMS command: **111111MON:P1***

This instruction is used to program the phone number which is used for carrying out direct monitoring or talking always.

User uses this phone number to call the tracker, it will be connected automatically. By this way, user can monitor the voice freely.

Example: 111111MON:13922713571*

Note: If the phone is the same as the first alarm-received phone (111111*10 Mobile #1*20 Mobile #2*), the calling from this telephone can only be arm/disarm the tracker.

SMS command: **111111MON!**

This instruction is used to monitor the voice around the car. The user's telephone pays for the communication fee.

Example: User uses the mobile 13780012345 to send 111111MON! to the system, then use the mobile 13780012345 to call the tracker, it will be connected automatically, and user can monitor the voice around.

Check the Location by GSM Base Station Code

SMS command: **111111LOC** (or **111111loc**)

This instruction is used to check the location by GSM base station code. The tracker will send back the relative GPS coordinates which is translated by the GSM base station code.

Over-speed Alert

111111SPD:X x is the speed in KM/H , maximum value is 255KM/H

(For example: 111111SPD:120, if the car speed is over 120KM/H, it will send alert SMS to warn you).

111111SPD:0 to disable the over-speed alert. It is the default setting.

111111SPD: to check the setting of over-speed alert.

Remark: this function is just for reference, because there might be some time delay or error in detecting the running car's real speed by GPS. Default speed limitation is 150KM/H.

Power Save Mode

SMS command: **111111PWR:X**

Value of X	Actions	Power consumption
0 (default)	Disable power save mode	60mA
1	Close GPRS connection	48mA
2	Close GPRS connection, GPS module	13mA
3	Close GPRS connection, GPS module & GSM module	6mA

After setting 111111PWR:1(or 2, or 3), if there is no vibration & SOS alarm, integration line is not triggered, and ACC is OFF, the tracker will go into power save mode after 5 minutes.

Once there is vibration or SOS alarm, or integration line is triggered, or ACC

is ON, the tracker will wake up from the power save mode immediately.

Define SMS Content in Different Languages.

SMS command: **111111LNG:X**

it is used to define the SMS content in different languages.

X=0, English; X=1, Chinese; X=2, Arabic;

X=3, Portuguese; X=4, Spanish; (Default setting: X=0, English)

Other SMS Command List

Note: ****** is user's password and the default password is 111111. The tracker will only accept commands with the correct password.

Functions	SMS Command	Example
Auto Report by SMS	******SEC:5:X	111111SEC:5,3;
Remarks: To set time interval for continuous automatic report via SMS. X is the interval in minute. If X=0 to turn off tracking by time. Example, the tracker will send location data back to your mobile phone every 3 minutes.		
Movement Alarm	******NUM:6:X,	111111NUM:6:150,
Example: it is set the radius of movement alarm as 150meters.(Default setting:100meters)		
Set the Shock Sensor	******NUM:3:X,	111111NUM:3:1,
It is to set the sensitivity of the shock sensor. X=1~10, sensor will be more sensitive if X value is smaller.		
Clear the Parameters	******CLR	111111CLR
Remarks: it will reset the GPRS settings & shock sensor to default settings, it will clear the alarm-received phone number and direct monitoring phone no.		
Set the Odometer	******ADC:5:X,	111111ADC:5:2000,

<table>
<tr><td colspan="3">It is to set the tracker's initialized odometer. (Unit: meters)</td></tr>
<tr><td>Geo-fence Alarm</td><td>W******,017,X
W******,117,X</td><td>W111111,017,
11404.0000,E,2232.0010,N,
11505.1234,E,2333.5678,N</td></tr>
<tr><td colspan="3">Remarks: 017 is for alarm when tracker moves out the preset scope; 117 is for alarm when tracker moves in.
When the tracker moves in/out, it will send a SMS alarm to the authorized phone number.
X is the coordinates which include:
Lower-left X,Lower-left Y,Upper-right X,Upper-right Y
For example, 11404.0000,E,2232.0010,N,11505.1234,E,2333.5678,N
Note:
1. Lower-left X should be less than Upper-right X;
2. All longitudes and latitudes should be in ASCII format as follows:-
Longitude: DDDMM.MMMM,E/W. 4 places of decimal. ‘0’ is needed to be stuffed if no value available.
Latitude: DDMM.MMMM,N/S. 4 places of decimal. ‘0’ is needed to be stuffed if no value available;
3. Only one alarm can be set in either Movement Alarm or Geo-fence Alarm;
4. Send W******,006,00 to turn off Geo-fence function.</td></tr>
<tr><td>Get IMEI number</td><td>******CMD:AT+GSN</td><td>111111CMD:AT+GSN</td></tr>
<tr><td colspan="3">Remarks: to get the IMEI number of tracker’s GSM module</td></tr>
</table>

IV. The Setting for GPRS Connection

The GPRS setting is necessary for using the following 2 functions:
(1) Check the car’s real physical address by send 111111ADD
(2) Online tracking service by web-based tracking platform

SMS format:

111111WWW:IPN:X;COM:X;APN:apn,user,password;RPT:X;SLP:X;RUN:X;

- IDN: The tracker’s ID, it is the last 14 digits of IMEI which can't be changed.

- IPN: The IP address or domain name of the GPRS server
- COM: The communication port for the GPRS server
- APN: The Access Point Name for the GSM SIM card.
- RPT: The interval for the uploading GPRS packet (Unit: sec.)
- SLP: The interval for uploading GPRS packet when car is parked (Engine is OFF and no vibration). (unit: sec.);
- RUN: GPRS connection setting. 0=close, 1=TCP, 2=UDP.

Example, if server is: www.51track.com, TCP port is 8500, APN is web.gprs,mtnnigeria.net, apn user:web, apn password: web, time interval is 60 seconds, Then the command is:

111111WWW:IPN:www.51track.com;COM:8500;APN:web.gprs.mtnnigeria.net, web,web;RPT:60;RUN:1;

User can send one or more options at the same SMS commands, such as:

✧ **111111WWW:IPN:X;COM:X;**

This is to set the server's address and port separately.

Example: 111111WWW:IPN:www.51track.com;COM:8500;

✧ **111111WWW:APN:X;**

This is to set the APN (access point name). Please use "," to separate the APN, APN username & APN password.

Example: 111111WWW：APN：web.gprs.mtnnigeria.net,web,web；

✧ **111111WWW:RPT:X;**

This is to set the upload time interval. The unit is second, the minimum value is 10 seconds. The default setting is 60

Example: 111111WWW：RPT：60； (Upload time interval is every 60s)

✧ **111111WWW:RUN:X;**

X=0; is to close down the GPRS;

X=1; is to open the GPRS via TCP

X=2; is to open the GPRS via UDP

Eg: 111111WWW：RUN：1； (Open the TCP connection)

✧ **111111WWW:**

You can send 111111WWW: to check the GPRS settings.

Default GPRS Setting

The default GPRS setting is:

- IPN: www.51track.com , COM:8500
- APN: internet RPT: 60 seconds
- SLP:0 RUN:0

III. Alarm Types

Vibration Alarm

In arming status, if the car/motorcycle is vibrated, it will send out alarm SMS.

Power Failure Alarm

In arming status, if the battery is cut off, it will send out alarm SMS.

Engine ON Alarm

In arming status, if the car/motorcycle's engine is ON, it will send out alarm SMS and call the preset phone.

Movement Alarm

In arming status, the movement alert is enabled automatically. Once the car moves away from the parking point for 100 meters, it will it will send out alarm SMS and call the preset phone.

Geo-Fence Alarm

Once the Geo-fence is activated, if the car/motorcycle oversteps the boundary, it will send out alarm SMS.

Over-speed Alarm

If the car/motorcycle runs over the speed limitation continuously for 3 minutes, it will send out alarm SMS.

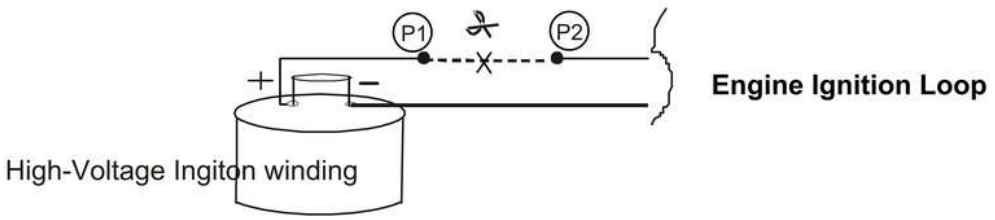
SOS Alarm

In any condition, if the SOS button is pressed, it will trigger the SOS alarm. *(NOTE: the SOS alarm will only be sent to the 2nd phone & the GPRS tracking center, the other alarms will send to all the preset phones & GPRS tracking center.)*

Trigger Alarm

If the trigger line detects a continuous positive signal for 5 seconds, it will send out this alarm.

IV. Installation



Notes:

(1). The relay's control output (P1 & P2, no polarity) has 2 kinds of connections. It can be used to cut off the engine ignition loop or the fuel pump's power supply loop.

(2). Please place the side with GPS antenna upside to the sky, so that it can receive good GPS signal.

(3). The pink line is used to upgrade the normal car alarm. Once it has continuous positive voltage for 5 seconds or pulse for 5 times, it will trigger the tracker to send out alarm.

Installation Steps:

(1) Please read the manual carefully before installation. Please prepare a valid GSM SIM card with Caller ID Display & GPRS function;
(2) Please push the front cover according to the direction;
(3) Insert the valid GSM SIM card, then turn on the backup battery switch;
(4) Close the cover, and fix the main unit tightly with the wiring harness at the correct place, please make sure that the side with GPS antenna is placed upside to sky, please make sure to install the main unit at broad place so that it can receive GPS signal well. For motorcycle, it is better to install inside the head bulb light where there is power supply and water proof. For vehicle, it is better to install inside the upper rim of the driving room or inside the dashboard. The recommend installation place is showed in the following picture:

For motorcycle

For vehicle

(5) Do the wring connection according to the diagram;
(6) Call the SIM card, to check if rings, if not, then check the power supply and the change the place of installation;
(7) If it rings when calling the SIM card, then send SMS to the tracker to check the GPS coordinate, if the GPS location is not correct, then fix the main unit to other place so that it can receive better GPS signal.

(8) IMPORTANT: The side with GPS antenna must be placed upside to the sky and kept away from the metal materials, otherwise, it can't get GPS signal well.

V . Specifications

Working voltage:	+6.0 ~+45VDC
Power Consumption:	Working current: 50mA; Peak current: 800mA;
Inside Backup battery:	Rechargeable 3.7V 500mAh Li-ion battery
Size of the main unit:	99*52*17 (mm)
Weight of the main unit:	76g
Working temperature:	-20 ~ 85℃
Humidity:	0 ~ 95%
GSM frequencies:	Quad-band: 850MHz/900MHz/1800MHz/1900MHz
GPS chip:	U-blox chipset
Receiving ways	20 channels
Working frequencies	1575.42Mhz C/A（GPS）
Receiving sensibility	-160dBm
Positioning accuracy	≤10m (wide-open area)
Speed accuracy	≤0.2M/S (wide-open area)
Positioning mode	Auto 2D/3D
Hot start	1 sec., average
Warm start	2 sec., average
Cold start	40 sec., average

VI. FAQs & Troubleshooting

FAQ	Troubleshooting
I call the tracker, it does not ring	(1) The GSM SIM card has no credit; (2) The SIM card is protected by PIN code; (3) Check the power supply, if 2 LEDs flash; (4) The SIM card is placed correctly in the slot;
I call the tracker, it rings, but it doesn't response with SMS	(1)The user password is wrong, please use the correct password or reset the password to test; (2) Low power, please use outside power supply to power on the unit to test
I can not get the alarm message	(1) The SIM card inside the device has no credit; (2) The Alert-received mobile number is not programmed correctly, or the SMS command is not in correct format;

	(3) The mailbox of the user's mobile is full;
I can not get the correct GPS coordinates or the location is wrong	(1) Please make sure there is no metal obstacles above the tracker. Please place the side with GPS antenna upside to the sky; (2) Please check it at broad place; (3) Please check if the GPS LED flash once every 3 seconds; place the tracker to other place, so as to make sure that it can receive the GPS siganl well (4) In cloudy condition, it is a little hard to get the GPS signal, and the GPS coordinate might have some errors.
Tracker fails to connect to server by GPRS	(1) The SIM card must be activated with GPRS function; (2) Do the correct setting for GPRS connection

VII. Maintenance

- ✧ Please make the local professionals to do the installation & maintenance of the GPS terminal. If the user assemble/ disassemble or repair the terminal without permission, we hold no responsibility for any loss caused thereafter.
- ✧ Please keep the terminal dry. In case of soaking or leaking water, contact the local professionals. Do not start the car yourself, or we hold no responsibility for any loss caused thereafter.
- ✧ When the car is inside buildings, cave, tunnel, or very close to tall buildings, the GPS/ GSM signal may not work well and the system may fail to work at that moment.
- ✧ Please check the balance of the tracker's SIM card periodically.
- ✧ The backup battery. The backup battery can only work for a certain time when temporary power off.
- ✧ For any other unusual situations, please contact the local agent.